## REMARKS

Claims 1-13 were pending in the present application. By this Amendment, claims 1-6 have been amended, without prejudice or disclaimer, and claim 7 has been amended to clarify the claimed invention. Accordingly, claims 7-13 are presented for reconsideration, with claims 7 and 13 being in independent form.

**Rejection under Sect. 112, first paragraph (written description)**

On page 2 of the June 2, 2005 Office Action, claims 1-13 were rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.

The Examiner stated that the "claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." The Examiner also stated that this is a new matter rejection.

The Examiner stated that claim 1 has been amended to recite "said database including a controller for updating said database with additional information". The Examiner further stated that the only basis pointed to for this claim amendment is page 13, line 31 through page 14, line 1. The Examiner also stated that Figure 1 and page 13, line 31 through page 14, line 1, clearly demonstrates that the controller is not part of the database.

The Examiner stated that "box labeled '1' is the 'system component' and has two separate parts, a database (1a) and a controller (1b)." The Examiner further stated that "Figure 1 limits the database of 1a to a genomics database and the controller of 1b to a control apparatus." The Examiner also stated that "there is no basis for a database that 'includes a controller for controlling generation and update of the database'." The Examiner further stated that "claim 1 and its

dependent claims contain new matter."

The Examiner stated that claim 13 is a newly introduced claim. The Examiner further stated that basis is stated to be at page 10, line 29 through page 12, line 4. The Examiner also stated that "the method and steps set forth in claim 13 do not correspond to the method set forth at these pages."

The Examiner stated that "Applicant is requested to point to basis for each and every limitation of the amended claims as none is apparent."

The Examiner stated that "claims 1-12 remain new matter for the reasons set forth in the prior office actions as well."

The Examiner stated that "a fair reading of the specification as originally filed would not convey to one of ordinary skill in the art that what is now claimed was the contemplated invention." The Examiner further stated that "Applicant may not recast or repackage the system components and method steps originally contemplated into different combination after the fact." The Examiner also stated that "the presently claimed methods as written are conceptually different from those claims originally filed and the methods disclosed in the specification as filed." The Examiner stated that "they constitute new matter." The Examiner further stated that she "does not see basis in the charts or arguments of record for the claimed system (claims 1-6) having claimed the database, at least one bioinformatics tool, protein synthesis means, protein processing means, crystallization means, X-ray crystallography means, analyzing means, structure extraction means, homology model building tool, and cryoprotection means (claim 2) having all of the limitations as set forth in the claims." The Examiner also stated that she "does not see basis in the charts or arguments of record for the claimed process having steps (a)-(j) (claims 7-12)." The

Examiner stated that "comparison of independent claims 1 and 7 alone to the basis pointed to in Applicant's chart reveals that basis for the system of claim 1 is premised on Figure 1 and pages 12-16, 20 and 21 of the specification and that basis for the process of claim 7 is premised on pages 10-16 and 20-22 of the specification." The Examiner further stated that "the system components and method steps set forth here neither match those of the claims in a broad sense or in particulars."

By this Amendment, claims 1-6 have been canceled, without prejudice or disclaimer, and therefore the rejection is now moot with respect to claims 1-6.

Applicant traverses the rejection with respect to claims 7-13.

As an initial matter, it is submitted that the Examiner has not given due consideration and analysis to the exemplary support from the application as filed cited (by indicating page and line numbers) in the chart, which Applicant submitted in response to the Examiner's request, for the claim elements.

In particular, it is noted that while the Office Action sets forth broad sweeping statements such as "The examiner does not see basis in the charts or arguments of record for the claimed process having steps (a)-(j) (claims 7-12). ... basis for the process of claim 7 is premised on pages 10-16 and 20-22 of the specification", no specific claim elements from claims 7-12 purportedly lacking support are identified. The only possible reading of these statements in the Office Action is that **no** elements of claims 7-12 have support in the application, which would clearly be a facetious position for the Examiner to take.

In order to have a meaningful prosecution of this application, Applicant requests the Examiner to clarify her position by identifying specific claim elements and/or features and

identifying the reasons why the Examiner finds to be inadequate the support cited by Applicant.

If the Examiner's position is that any claim element or feature is new matter because it lacks verbatim support, the Examiner's attention is directed to Eiselstein v. Frank, 52 F.3d 1035, 1038-39 (Fed.Cir. 1995) and In re Lukach, 442 F.2d 967, 969 (C.C.P.A. 1971), in which the Federal Circuit and its predecessor, respectively, point out that such support is not needed for the written description required under 35 U.S.C. 112. Copies of the Eiselstein and Lukach are attached hereto as **Exhibits 1** and **2**, respectively, for the Examiner's reference. The relevant case law is clear that the issue is not whether the claimed subject matter is described in exactly the same terms as used in the claims, but rather whether the application as filed indicates to persons skilled in the art that the applicant had invented as of the filing date what is now claimed. Such an analysis requires the Examiner to identify the claim element and/or feature that is purportedly not supported by the application as filed, and to compare substantively the claim element and/or feature to the cited support.

These same points apply to claim 13.

The Examiner stated: "Claim 13 is a newly introduced claim. Basis is stated to be at page 10, line 29 through page 12, line 4. The method and steps set forth in claim 13 do not correspond to the method set forth at these pages."

Claim 13 is substantially (although not verbatim) the same as the description at page 10, line 29 through page 12, line 4 of the application as filed. If the Examiner disagrees regarding any particular claim element and/or feature, Applicant requests that the Examiner identify the particular claim element and/or feature and state why any differences in term between the claim term and

the description the application as filed is a substantial distinction.

Accordingly, withdrawal of the written description rejection of claims 1-13 under 35 U.S.C. §112, first paragraph, is respectfully requested.

**Rejection under 35 U.S.C. §112, first paragraph (enablement)**

On page 4 of the June 2, 2005 Office Action, claims 1-13 were rejected under 35 U.S.C. §112, first paragraph, because the specification purportedly does not provide enablement for the breadth of what is encompassed.

The Examiner stated that the "specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims."

The Examiner stated that "one of ordinary skill in the art is not guided to what system to make and how the parts are interrelated or connected." The Examiner further stated that "without clear guidance as to how the system is set up, one of ordinary skill in the art is not guided as to how to perform the claimed process."

The Examiner stated that "claims 1-6 are considered to encompass an integrated (in some unidentified fashion)), turn-key system and/or fully automated system that is not enabled." The Examiner further stated that "an adequate disclosure of a device requires details of how complex components are constructed and perform the desired function, particularly if the specification does not detail how the parts should be interconnected and controlled." The Examiner also stated that "block diagrams with functional labels do not indicate whether the parts are 'off the shelf' or must be specifically constructed or modified for applicant's system."

The Examiner stated that "there is no argument nor evidence of record that such synchrotron facilities would permit physical, structural, or functional connection with any or all of the devices set forth in the claims." The Examiner further stated that "applicant is requested to explicitly set forth on the record what they believe the claimed system is directed to with respect to integration of components or lack thereof."

The Examiner stated that "reference to generic off the shelf programs at page 16 of the response does not provide guidance to one of ordinary skill in the art as to what system to build or how." The Examiner further stated that "naming different devices without guidance as to how the parts should be interconnected and controlled is not enabling." The Examiner also stated that "Applicant is requested to document the assertion on page 16 that one skilled in the art with the suggestions and guidance provided by this application would readily be able to implement such robotics and automation processes." The Examiner stated that she "is not aware of any systems having all of the means required by the claims integrated and or automated in this way." The Examiner further stated that "the claims do not contain limitation to robotics or automation."

The Examiner stated that "it is unclear what the computer printouts of web pages regarding facilities at the Argonne National Laboratory (ANL) Advanced Photon Source (APS) are intended to show." The Examiner further stated that "submitting proposals or communication data to and from the APS are not limitations of the claims." The Examiner further stated that "these pages do not document enablement of a system or process using such a system as claimed by applicant."

The Examiner stated that "Applicant's response fails to address their assertion that the claim language invokes 35 USC 112, sixth

paragraph." The Examiner further stated that "Applicant has not pointed to the particular means specified in the written description and equivalents thereof to perform the particular function." The Examiner also stated that "it does not appear that the corresponding structure, material, or acts are set forth in the written description necessary to perform the function." The Examiner stated that "Applicant is reminded that upon appeal they will be required to identify every means plus function and set forth every structure, material, or act described in the specification as corresponding to each claimed function."

The Examiner stated that with respect to claims 7-12 and newly applied to claim 13, "the specification fails to guide one of skill in the art as to the particular steps to be performed and how they are to be performed in order to execute the method." The Examiner further stated that "claim 7 recites 'using at least one bioinformatics tool and the sequence information, structural information and functional information stored in the database'." The Examiner also stated that "this does not illuminate which bioinformatics tool, what specific information, or how to use it to achieve the goal of clustering." The Examiner stated that "it does not provide the positive, active steps to perform on unspecified structural or sequence information to arrive at a plurality of families within the context of the claims." The Examiner further stated that "the database has sequence information for a first plurality of proteins and structural information and functional information for a second plurality of proteins."

The Examiner proposed an example that the structural information for the second plurality is polymeric structure (monomer, dimmer, etc.), and another example that the functional information for the second plurality is enzymatic activity (protease, synthase, etc.). The Examiner queried "how does one practicing the invention use polymeric structure and enzymatic activity to

cluster into a plurality of families?"

The Examiner proposed the example that proteins A, B and C are in the first plurality and proteins D, E and F are in the second plurality, that protein D is a monomeric protease, and that protein is a trimeriv synthase. The Examiner queried "what is the plurality of families that the at least one bioinformatics tool identifies?" The Examiner also queried "how are homologous sequences for the family determined if the database does not contain sequence information for D, E and F and their sequences cannot be compared to sequence information for A, B and C?" The Examiner stated that the specification provides no discussion or guidance for adapting bioinformatics tools to make such determinations.

The Examiner stated that in step (g), the refined model is stored in the database. The Examiner also stated that part (a) does not require that the structural information include a refined model or a homology model. The Examiner stated that in step (j), the databases is updated to link the refined model to other databases. The Examiner further stated that part (a) does not require that the database have links to any information at all. The Examiner stated that "the method steps as written are internally inconsistent." The Examiner further stated that "as written, one of ordinary skill in the art would be unable to practice the method for at least these reasons."

The Examiner further stated that claim 13 is similarly not enabled as it parallels claim 7. The Examiner also stated that there is not guidance for how steps (k)-(m) are to be performed by one of ordinary skill in the art.

The Examiner stated that Applicant is reminded that claims are interpreted in view of the specification without importing limitations from the specification into the claims. The Examiner

further stated that the specification must enable the full breadth of what is claimed not merely some aspects of the claims.

By this Amendment, claims 1-6 have been canceled, without prejudice or disclaimer, and claim 7 has been amended to clarify the claimed invention. Therefore the rejection is now moot with respect to claims 1-6.

The claim amendments to claim 7 is believed to overcome many of the issues identified in the Office Action. In addition, the following comments address other aspects of the Office Action.

Claim 7 has been amended to clarify that "using at least one bioinformatics tool and the sequence information, structural information and functional information stored in the database" is an act within the step of "clustering the plurality of proteins into a plurality of families ..." As discussed in the application, the step of clustering includes using one or more bioinformatics software tools to organize the plurality of proteins into a plurality of families. While the tools can vary in its approach to organizing the proteins into families, the application does discuss some examples of such approaches at page 14, lines 3-32. Applicant maintain that it is not necessary to discuss the specific acts within using each bioinformatics software tool because such acts are specific to the well-known bioinformatics tool (for example, BLAST). Moreover, the guidance provided in the application does enable one to use a sequence analysis approach such as BLAST.

Regarding steps (g) and (j), the Examiner apparently does not appreciate that a database is dynamic and therefore information as well as data objects or entities can be added to the database as they become available. Therefore, there is nothing inconsistent with organizing specific information into a database [in step (a)], and then later or at the same time adding

additional information (for example, information of other types) into the database [such as in step (g) or step (j)]. There is simply no requirement that the database be limited to the information organized in step (a).

To the extent that the same issues arise in claim 13, the comments above apply equally to claim 13.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-13 under 35 U.S.C. §112, first paragraph, are requested.

**Rejection under 35 U.S.C. §112, second paragraph**

On page 8 of the June 2, 2005 Office Action, claims 1-13 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner stated that these rejections are maintained for reasons of record and newly applied to claim 13 for the same reasons as this claim recited the same "homologous sequences" and families".

The claims have been amended and additional clarifying comments have been provided by Applicant since reasons were provided for the indefiniteness rejection. Applicant requests the Examiner to point out the indefinite terms that remain, in view of the claim amendments and Applicant's remarks.

The issues regarding "homologous sequences" and "families" have been repeatedly addressed by Applicant, without the Examiner's comments regarding Applicant's clarifying remarks. In particular, as Applicant previously pointed out, the criteria for family is set forth in the claim, that is, "for each family, members of the family have homologous sequences", and the level

of homology is discussed in the application at, for example, page 14, lines 3-16 which is repeated below again for the Examiner's convenience:

> "Three dimensional structural information may be exploited in conjunction with recent advances in amino acid sequence analysis to construct the database. Advanced bioinformatics tools 2 are used to cluster all known gene products into families of homologous sequences. The clustered gene products are typically similar at approximately 30% identity, <0.001 probability of error. The structure of a representative member for each and every family is determined. The protein classes may include whole proteins, domains or sequence motifs that may or may not correspond to independent modules. The unsolved members, which probably constitute the majority, of each family may be visualized by homology modeling based on the known structures of family representatives, as described below."

Accordingly, reconsideration and withdrawal of the rejection of claims 1-13 under 35 U.S.C. §112, second paragraph, are requested.

**Rejection Under 35 U.S.C. §102(a)**

On page 8 of the June 2, 2005 Office Action, claims 1-13 were rejected under 35 U.S.C. §102(a) as allegedly anticipated by alleged knowledge of others in this country before the invention thereof by Applicant, as purportedly evidenced by

(1) the Workshop on Structural Genomics held at Argonne National Laboratories held January 1998,

(2) National Institute of General Medical Sciences (NIGMS) Protein Structure Initiative (PSI) held April 24, 1998 (hereinafter "the NIGMS PSI paper"),

(3) NIGMS Genomics Project Planning Meeting held November 24, 1998,

(4) Structural Genomics Meeting held October 1998 in Avalon, New Jersey,

(5) Shapiro et al. (Current Biology, 15 March 1998), and

(6) Gaasterland (Nature Biotechnology, July 1998).

Again, this rejection is traversed.

It is noted that the Examiner has never made a prima facie showing for this rejection. Such a showing requires that it be demonstrated that each and every feature of the claimed invention is disclosed by a single reference. The Examiner simply has not made such a showing.

As previously pointed out of record (see, for example, Amendment filed Feb 4, 2005, and Request For Reconsideration filed July 26, 2004), references (1) through (6) are six distinct references and pools of knowledge. None of the references discloses each and every feature of the claimed invention.

Should the Examiner disagree therewith, Applicant requests the Examiner to point out by page and line number where each and every feature of the claimed invention can be found in a single reference.

It is noted that it is well-established that anticipation under 35 U.S.C. §102 must be proved by facts and not by suppositions and unsupported allegations.

Further, it should be also noted that it is the burden of the Patent Office to provide a prima facie case of unpatentability. Until the Patent Office has made such a showing with regard to references (1) through (6), Applicant does not incur a burden of demonstrating that they do not render the claimed invention unpatentable.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-13 under 35 U.S.C. §102(a) are requested.

**Rejection under 35 U.S.C. §102(f)**

On page 8 of the June 2, 2005 Office Action, claims 1-13 were

rejected under 35 U.S.C. §102(f) because the applicant purportedly did not invent the claimed subject matter in view of

(a) the Workshop on Structural Genomics held at Argonne National Laboratories held January 1998,

(b) NIGMS PSI meeting held April 24, 1998,

(c) NIGMS Genomics Project Planning Meeting held November 24, 1998,

(d) Structural Genomics Meeting held October 1998 in Avalon, New Jersey, and

(e) Gaasterland (Nature Biotechnology, July 1998).

The Examiner stated that Applicant has not presented evidence disputing the content of what was discusses at these meetings. The Examiner further stated that the documents or record pertaining to the cited meetings provide every indication that the claimed system and method were discussed in a general way and a particular way with respect to particular methodologies to practice the method to those in attendance.

The Examiner stated that page 18 of the NIGMS PSI meeting lists Paul Bash and Eaton Lattman (co-chairs and workshop participants) as the authors of the document. The Examiner further stated that as they were present at the meeting, the content of the NIGMS meeting summary reflects the knowledge of those present.

The rejection is traversed.

As pointed out above, it is the burden of the Patent Office to provide a prima facie case of unpatentability, and such a case must be made by a showing of facts and not by suppositions and unsupported allegations.

Here, the Examiner has never made the required prima facie showing for this rejection.

The rejection is founded on references (a) through (e) which are five distinct references. Further, none of the references (a) through (e) discloses each and every feature of the claimed invention.

As mentioned above, should the Examiner disagree therewith, Applicant requests the Examiner to point out by page and line number where each and every feature of the claimed invention can be found in a single reference.

Since the Examiner has not provided citation to the document referenced, it is impossible for Applicant to review much less comment on the allegations made by the Examiner.

It is believed that the Examiner may be referring to some of the documents attached as exhibits to the Information Disclosure Statement filed by Applicant on September 26, 2002. Applicant requests that the Examiner refer to any such documents by exhibit number, for the sake of clarity. Similarly, other documents should be cited as precisely as possible, so that Applicant can evaluate the contentions of the Examiner. Absent such a clear showing, a prima facie case of unpatentability has not been made.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-13 under 35 U.S.C. §102(f) are requested.

In view of the remarks hereinabove, Applicant submits that claims 7-13 are now in condition for allowance, and earnestly solicits the allowance of claims 7-13.

If a telephone interview would be of assistance in advancing prosecution of the present application, Applicant's undersigned attorney invites the Examiner to telephone him at the telephone number provided below.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

No fee is deemed necessary in connection with the filing of this response. However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Paul Teng September 1, 2005
Paul Teng Date
Reg. No. 40,837

Indeed, Amgen itself had no right to sell EPO abroad by reason of its obtaining the '008 patent and, thus, could not license that right to Ortho as an incident of patent ownership. With respect to rights under the '008 patent, Ortho had only a nonexclusive right to use the '008 invention at one location in the United States. Thus, considering only this right, Ortho is a bare, that is, nonexclusive, licensee and has no standing to bring or join a suit for infringement against Genetics.

C.

[12] The conclusion that Ortho held only nonexclusive rights under paragraph 2.01(b) would end our inquiry except for the provision in the license agreements which gave Ortho the right to bring appropriate suits if Amgen did not. As provided in paragraph 8.02:

> AMGEN shall have the right, but not the obligation, to bring, defend, and maintain any appropriate suit or action.... In the event AMGEN fails to take action with respect to such matters within a reasonable period, not more than six (6) months, following receipt of such notice and evidence, ORTHO shall have the right, but not the obligation, to bring, defend, and maintain any appropriate suit or action. Absent an agreement between the parties to jointly bring any action or suit hereunder and share the expenses thereof, any amount recovered in any such action or suit shall be retained by the party bearing its expenses thereof.

Other parts of the right to sue clause require that Amgen and Ortho consult and sue together if either "finds it necessary" to "join" the other and that each will "cooperate" with the other.

Ortho argues that the contract should be construed to give each party the right to bring its own action where cooperation is not forthcoming. Amgen argues that the contract provisions, under which Amgen exercised its right to sue alone and keep all damages, would control regardless of whether or not Ortho had an exclusive license. We conclude that the right to sue clause has no effect in this case.

[13, 14] First, a licensee with sufficient proprietary interest in a patent has standing regardless of whether the licensing agreement so provides. Express covenants may, of course, regulate the duties between the licensor and licensee to implement the rights of the parties. *Independent Wireless Co.*, 269 U.S. at 469, 46 S.Ct. at 169; *Abbott Labs.*, 47 F.3d at 1134. However, a contract cannot change the statutory requirement for suit to be brought by the "patentee." By the same token, a right to sue clause cannot negate the requirement that, for co-plaintiff standing, a licensee must have beneficial ownership of some of the patentee's proprietary rights. A patentee may not give a right to sue to a party who has no proprietary interest in the patent. *Crown Die & Tool Co. v. Nye Tool & Machine Works*, 261 U.S. 24, 44, 43 S.Ct. 254, 259, 67 L.Ed. 516 (1923); *see also Life Time Doors, Inc. v. Walled Lake Door Co.*, 505 F.2d 1165, 1167–68, 184 USPQ 1, 2 (6th Cir.1974) (bare licensee has no right to be in suit or to appeal; such authorization by patentee has no effect); *Overman Cushion Tire Co. v. Goodyear Tire & Rubber Co.*, 59 F.2d 998, 14 USPQ 104 (2d Cir.), *cert. denied*, 287 U.S. 651, 53 S.Ct. 97, 77 L.Ed. 562 (1932) (nonexclusive licensee has no right to sue or be joined in suit); *Philadelphia Brief Case Co.*, 145 F.Supp. at 429–30, 111 USPQ at 183 (contract clause cannot give right to sue where licensee would otherwise have no such right). Here, being only a nonexclusive licensee, Ortho has no inherent or implied right to sue which the clause regulates as between the parties. Thus, we conclude the right to sue clause has no effect on Ortho's standing, one way or the other.

[15] Secondly, under the cited precedent, the requirement that a licensee sue in the name of the patentee is not merely a formality. The patentee is brought into the suit for substantive reasons, namely, to protect its own interests in connection with the charged acts of infringement and "to enable the alleged infringer to respond in one action to all claims of infringement for his act." *Independent Wireless Co.*, 269 U.S. at 468, 46 S.Ct. at 169.

[16] A licensee cannot stand by until a patentee's suit is concluded and then seek to vindicate its rights in a second suit. As stated in *Birdsell v. Shaliol*, 112 U.S. 485, 486–87, 5 S.Ct. 244, 245, 28 L.Ed. 768 (1884):

> [W]hen a suit ... has been brought and prosecuted, in the name of the patentee alone, with the licensee's consent and concurrence, to final judgment from which, if for too small a sum, an appeal might have been taken in the name of the patentee, we should hesitate to say merely because the licensee was not a formal plaintiff in that suit, that a new suit could be brought to recover damages against the same defendant for the same infringement.

While Ortho sought to become part of Amgen's suit at trial, on appeal Ortho seeks approval of an independent second suit in the name of Amgen against the same infringer for the same acts of infringement, namely, Genetics use of the patented '008 technology in the United States, which was the subject of Amgen's suit. Ortho does not claim it was a necessary or indispensable party to Amgen's suit, did not appeal the denials of intervention therein, and did not appeal the order deconsolidating this suit from Amgen's. Moreover, the parties advised the court at the hearing that the Amgen/Genetics litigation has been settled. Thus, Ortho has effectively consented and concurred to suit in the name of the patentee alone.

IV.

CONCLUSION

For the foregoing reasons, the judgment is *AFFIRMED.*


trary to Ortho's argument, the court held only that the provision respecting foreign sales of EPO was a contract right, not that the agreement was unenforceable against Amgen.



**Herbert L. EISELSTEIN, Jerry A. Harris, Darrell F. Smith, Jr., Edward F. Clatworthy, Stephen Floreen and Jeffrey M. Davidson, Appellants,**

**v.**

**Richard B. FRANK, Terry A. Debold, Sunil Widge and James W. Martin, Appellees.**

**No. 94–1374.**

United States Court of Appeals, Federal Circuit.

April 11, 1995.

Patentee appealed from decision of the Board of Patent Appeals and Interferences, holding claim of his patent for a nickel-based alloy unpatentable as anticipated by prior art. The Court of Appeals, Lourie, Circuit Judge, held that: (1) grandparent patent application provided written description of nickel content of nickel-based alloy set forth in claims of subsequent application, but (2) grandparent application did not provide written description of nickel content of nickel-based alloy set forth in other claims of subsequent patent.

Affirmed in part and reversed in part.

**1. Patents ⇐314(1)**

Compliance with "written description" requirement is question of fact in patent case, to be reviewed under clearly erroneous standard. 35 U.S.C.A. § 112.

**2. Patents ⇐99**

Grandparent patent application provided written description of nickel content of nickel-based alloy set forth in claims of subsequent application, which recited various ranges of different elements, with nickel, "about 45% to about 55% of said alloy," entitling inventor to benefit of grandparent's filing date; although word "about" did not immediately precede nickel range limits in grandparent application, that application described alloy comprised of series of inexact ranges of elements with balance of that composition described as "essentially nickel," and

person skilled in the art would have considered that application to describe approximate range of nickel. 35 U.S.C.A. §§ 102(b), 112, 120.

**3. Patents ⇐99, 110**

In order to determine whether prior patent application meets "written description" requirement with respect to later-filed claims, prior application need not describe claims of subject matter in exactly same terms as used in claim; it must simply indicate to person skilled in the art that as of earlier date, applicant had invented what is now claimed. 35 U.S.C.A. § 112.

**4. Patents ⇐99**

Test for determining whether patent application satisfies written description requirement is whether disclosure of application relied upon reasonably conveys to person skilled in art that inventor had possessed claimed subject matter at time of the earlier filing date. 35 U.S.C.A. § 112.

**5. Patents ⇐101(1)**

Meaning of word "about" in patent application is dependent upon facts of case, nature of invention, and knowledge imparted by totality of earlier disclosure to those skilled in the art. 35 U.S.C.A. § 112.

**6. Patents ⇐99**

Grandparent patent application did not provide written description of nickel content of nickel-based alloy set forth in certain claims of subsequent application, so as to entitle inventor to filing date of grandparent application with regard to those claims; grandparent application only disclosed nickel range of 45 to 55%, while subsequent application claimed nickel content of "about 50 to 60% of the alloy." 35 U.S.C.A. §§ 112, 120.

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Francis J. Mulligan, Jr., Inco Patents and Licensing, Saddle Brook, NJ, argued for appellants.

Francis A. Paintin, Woodcock Washburn Kurtz MacKiewica & Norris, Philadelphia, PA, argued for appellees.

Nancy J. Linck, Sol., Albin F. Drost, Deputy Sol. and Richard E. Schafer, Acting Associate Sol., Arlington, VA, were on the brief for amicus curiae, Comm'r of Patents and Trademarks.

Before PLAGER, LOURIE, and SCHALL, Circuit Judges.

LOURIE, Circuit Judge.

Herbert L. Eiselstein *et al.* appeal from a decision of the Board of Patent Appeals and Interferences in interference number 102,601, holding claims 1–19 of United States Patent 4,788,036 unpatentable under 35 U.S.C. § 102(b). Because the Board properly denied Eiselstein *et al.* the benefit of an earlier application's filing date under 35 U.S.C. § 120 with respect to claims 1–7 and 19, but erred in denying Eiselstein *et al.* the benefit of that filing date with respect to claims 8–18, we affirm in part and reverse in part.

## BACKGROUND

This appeal involves an interference between United States Patent 4,788,036, naming Appellants (collectively "Eiselstein") as inventors, and United States patent application serial number 869,138, naming Appellees (collectively "Frank") as inventors. The Eiselstein patent issued on November 29, 1988 from application serial number 914,137, filed October 1, 1986 (the "Eiselstein application"). The Eiselstein application was a continuation-in-part of application serial number 566,601 (the "parent application"), filed December 29, 1983, which in turn was a continuation-in-part of application serial number 255,158 (the "grandparent application"), filed April 17, 1981. Eiselstein is also the named inventor on European Application 066361 (EP'361), published December 8, 1982, which corresponds substantially to the grandparent application. Frank was designated the senior party in the interference based upon the earlier May 30, 1986 filing date of his application.

The subject matter in interference is a nickel-based alloy having high strength, ductility, and resistance to corrosion. The alloy may be used for, *inter alia*, production of tubing and associated hardware for deep sour gas and oil well applications. The dispute centers on the nickel content of the claimed alloy. Count 1, the sole count, reads:

> A nickel-base alloy consisting essentially of, in weight percent, about 15 to 25% chromium, up to about 20% iron, about 6.5 to 12% molybdenum, about 2 to 6% columbium, from 0.5 to 2.5% titanium, up to about 1% aluminum and *the balance nickel with nickel being at least about 50% of the alloy* [emphasis added].[1]

Two representative claims of the Eiselstein patent read as follows:

> 1. A nickel-base alloy ... said alloy consisting essentially of, in weight percent, about 15 to 25% chromium, about 5 to about 15% iron, about 6.5 to 9% molybdenum, about 2.5 to 5% columbium, from 0.5 to 2.5% titanium with the proviso that when the titanium is less than 1% the columbium is at least 3.5%, up to about 0.5% aluminum and *the balance nickel with nickel constituting about 50 to about 60% of the alloy* [emphasis added].
>
> 15. A nickel-chromium-iron base alloy ... said alloy consisting essentially of from 15% to about 25% chromium, about 5% to about 15% iron, about 6.5% to 9% molybdenum, about 2.5 to 5% columbium, from 0.5 to 2.5% titanium, with the proviso that when the titanium is below 1% the columbium is at least 3.5%, up to about 0.5% aluminum and *the balance nickel, the nickel being from about 45% to about 55% of said alloy* [emphasis added].

Claim 1 is representative of claims 1–7 and 19. Claim 15 is representative of claims 8–18.

In the interference, the Examiner-In-Chief (EIC) held that Eiselstein's claims 1–7 and 19 were anticipated by EP'361 and hence were unpatentable under § 102(b). In so holding, the EIC denied Eiselstein's claim under § 120 for benefit of the grandparent application's filing date. The EIC determined that the grandparent did not satisfy the written description requirement of 35 U.S.C. § 112 for claims 1–7 and 19 because it described a nickel content of 45 to 55% weight percent, not about 50 to about 60%, as required by those claims.

The Board upheld this determination and further held that Eiselstein's claims 8–18 were also unpatentable under § 102(b). The Board determined that, because the grandparent application did not use the word "about" in reference to the nickel content of the alloys described, the invention of claims 8–18 was not described therein and these claims could not be accorded the filing date of the grandparent application. Thus, while EP'361 did not contain a disclosure of claims 8–18, it did describe subject matter within the scope of the claims, and the claims were therefore held to be anticipated by EP'361. The interference resulted in a determination by the Board that Eiselstein was not entitled to a patent on any of his claims.

In its decision, the Board advised Eiselstein *et al.* that they could

> file an application for reissue of their patent for the *sole* purpose of claiming alloys containing "the balance essentially nickel in a weight proportion of 45% to 55% of said alloy." Eiselstein et al. are given two (2) months from the date of this decision in which to file their application for reissue.

Within the two-month period specified by the Board, but later than the one-month regulatory time limit for filing a Request for Reconsideration of a Board decision, *see* 37 C.F.R. § 1.658(b), Eiselstein filed a Request for Reconsideration to contest the § 102(b) rejection of claims 8–18. The request was dismissed as untimely in the absence of a showing of sufficient cause. *See* 37 C.F.R. § 1.645(b). Eiselstein's subsequent Request for Reconsideration and Petition to the Commissioner asking for relief from the dismissal of the Request was denied. Eiselstein now appeals pursuant to 35 U.S.C. § 141.[2] We have jurisdiction over the appeal under 28 U.S.C. § 1295(a)(4)(A).

## DISCUSSION

"A person shall be entitled to a patent unless[, *inter alia*,] the invention was ... described in a printed publication in ... a

1. Frank's claims 1–36 correspond to the count; Eiselstein's claims 1–19 correspond to the count.

2. On January 6, 1995, Eiselstein filed a reissue application and petition for suspension of action in the Patent and Trademark Office under 37 C.F.R. § 1.103.

foreign country ... more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102(b). Whether patentability is barred by § 102(b) is a question of law to be determined based upon underlying factual determinations. *See United States Envtl. Products Inc. v. Westall*, 911 F.2d 713, 715, 15 USPQ2d 1898, 1900 (Fed.Cir.1990).

Eiselstein first argues that the Board erred in rejecting claims 1–19 under § 102(b), asserting that he was entitled to claim the benefit of the filing date of his grandparent application pursuant to § 120. Eiselstein also argues that the Board did not afford him procedural due process when it rejected claims 8–18 under § 102(b) for the first time in its final decision. In Eiselstein's view, the Board did not afford him an adequate opportunity to respond to the § 102(b) rejection because it did not explicitly set a time for him to respond and it effectively left him only the option of filing a reissue application, thereby causing him to impliedly admit the soundness of the rejection. Because we agree with Eiselstein that the Board's rejection of claims 8–18 was in error, we need not address Eiselstein's procedural argument and we turn directly to the merits.

[1, 2] The correctness of the Board's rejection of claims 1–19 under § 102(b) depends on whether or not Eiselstein's grandparent application satisfies the written description requirement of § 112, ¶ 1, for the subject matter of those claims. Compliance with the "written description" requirement is a question of fact, to be reviewed under the clearly erroneous standard. *Id.* If that requirement is met, claims 1–19 are entitled to the benefit of the grandparent's filing date under § 120.[3] Since the Patent and Trademark Office relied only on EP'361 to invalidate the claims under § 102(b), entitlement to the filing date of the grandparent application would enable Eiselstein to antedate EP'361, thereby removing it as a reference against the claims.[4]

The first paragraph of § 112 reads as follows:

> The specification shall contain a *written description of the invention*, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

35 U.S.C. § 112, ¶ 1 (emphasis added).

[3, 4] "Satisfaction of the description requirement insures that subject matter presented in the form of a claim subsequent to the filing date of the application was sufficiently disclosed at the time of filing so that the prima facie date of invention can fairly be held to be the filing date of the application." *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562, 19 USPQ2d 1111, 1115 (Fed.Cir.1991) (quoting *In re Smith*, 481 F.2d 910, 914, 178 USPQ 620, 623–24 (CCPA 1973)). In order to determine whether a prior application meets the "written description" requirement with respect to later-filed claims, the prior application need not describe the claimed subject matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the earlier date the applicant had invented what is now claimed. *Id.* at 1563, 19 USPQ2d at 1116; *see In re Wertheim*, 541 F.2d 257, 265, 191 USPQ 90, 98 (CCPA 1976) ("[L]ack of literal support ... is not enough ... to support a rejection under § 112."). The test is whether the disclosure of the application relied upon reasonably conveys to a person skilled in the art that the inventor had possession of the claimed subject matter at the time of the earlier filing date. *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed.Cir.1985). "Precisely how close the original description must come to comply with the description requirement of § 112 must be determined on a case-by-case basis." *Vas-Cath*, 935 F.2d at 1561, 19 USPQ2d at 1116.

The first question we must address is whether the Board clearly erred in determining that Eiselstein's grandparent application did not provide a written description of the nickel content of the nickel-based alloy set forth in claims 8–18, which recite various ranges of different elements, and "the balance nickel, *the nickel being from about 45% to about 55% of said alloy* [emphasis added]." The grandparent application described "An alloy containing *about* 15% to 22% chromium, 10% to 28% iron, 6% to 9% molybdenum, 2.5% to 5% columbium, 1% to 2% titanium, up to 1% aluminum, advantageously 0.05 to about 0.1% aluminum, *and balance essentially nickel in a weight proportion of 45% to 55% of the alloy* [emphasis added]." Although in that application, the word "about" does not immediately precede the nickel range limits, Eiselstein argues that, according to standard English usage, the word "about" used before the first term of a series of elements applies to all members of that series. Frank agrees with Eiselstein's position, and further points out that to require the use of "about" before every range would be both cumbersome and redundant.[5] Thus, we are presented with the situation of both parties, for their own reasons, urging that the Board clearly erred, while the Commissioner, as *amicus curiae*, supports the Board's finding. Although not for the reasons advanced by Eiselstein and Frank, we agree that the Board's decision was based on clear error.

As indicated earlier, the grandparent application need not contain precisely the same words as are found in claims 8–18, *see Ralston*, 772 F.2d at 1576, 227 USPQ at 180; rather, the application simply must indicate to a person skilled in the art that the range 45% to 55% was intended to be approximate, *i.e.*, to mean "about." We conclude that this was unmistakably the case.

The grandparent application describes an alloy comprised of a series of inexact ranges of elements with the balance of that composition described as "essentially nickel." "Essentially" is a vague term. The description also connotes a degree of approximation, or imprecision, in that the nickel comprises the "balance" of the composition, an amount that varies with the amounts of the other components. The amount of nickel is clearly not the critical aspect of the invention, but only the residual amount, depending upon the amounts of the more critical elements. Furthermore, the grandparent specification contains the following statement after the alloy's description: "Auxiliary elements, including malleablizers and deoxidizers, can be present in permissible small amounts ... and residual small amounts of [other substances] can remain [with] tolerable impurities possibly present." The specification further instructs that, for certain applications, the composition of the alloy can be more "specially restricted" or "closely controlled" for more consistent or advantageous results.

In "Table I" of the specification the chemical analyses of 3 sample alloys are set forth. Eiselstein lists the weight percent of each element in each alloy to one-hundredth of a percent. Such a description indicates that Eiselstein knew how to be precise when he intended to, and supports the conclusion that otherwise, when a whole number was stated, a precise amount was not intended. Thus, we are of the firm conviction that in his grandparent application, Eiselstein disclosed the invention of an alloy of various elements and the balance nickel, the nickel being an imprecise quantity, *i.e.*, from *about* 45% to *about* 55% of said alloy and, on the basis of that disclosure, one skilled in the art reading the grandparent application would readily

3. Section 120 reads:
**§ 120 Benefit of earlier filing date in the United States**
An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

4. In order for the Eiselstein application to be entitled under 35 U.S.C. § 120 to the filing date of an earlier application in the chain of applications of which it is a part, there must also have been a "continuing disclosure through the chain of applications, without hiatus." *Lemelson v. TRW, Inc.*, 760 F.2d 1254, 1266, 225 USPQ 697, 706 (Fed.Cir.1985) (citation omitted). Here, it is undisputed that the intervening parent application satisfies the written description requirement of § 112 as to the claimed subject matter.

5. Eiselstein's and Frank's assertion that "about" applies to every quantity in the series is undercut by the fact that "about" appears not only before the series of elements, but also before the percentage of aluminum as one of the series of elements.

know that Eiselstein possessed that invention. Eiselstein need not be bound to maximum precision for the nickel content when the whole tenor of his disclosure indicates approximation. The Board clearly erred in finding otherwise.

[5] We are not unresponsive to the Commissioner's argument that the word "about" in a later added claim can broaden an original disclosure that indicates to one skilled in the art that his or her invention is to a precise, not an approximate, amount, range, or limit. Under such circumstances, the term "about" in the later added claim is new matter and may not receive the benefit of an earlier filing date. The meaning of the word "about" is dependent on the facts of a case, the nature of the invention, and the knowledge imparted by the totality of the earlier disclosure to those skilled in the art. *See In re Wertheim*, 541 F.2d at 262, 191 USPQ at 96. We are also mindful that the word "about" may lead to indefiniteness under § 112, ¶ 2, *see Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1218, 18 USPQ2d 1016, 1031 (Fed.Cir.), *cert. denied*, 502 U.S. 856, 112 S.Ct. 169, 116 L.Ed.2d 132 (1991), but that is not at issue here.

In this case, it was clear error to find that a person skilled in the art would not have considered the grandparent application to describe an approximate range of nickel. The later use of the term "about" to describe the range of nickel did not constitute a change to a distinct and different invention. Since the finding of the board concerning the disclosure of the grandparent application was clearly erroneous, the rejection of claims 8–18 based on that error was perforce erroneous as a matter of law.

[6] The second question raised is whether the Board clearly erred in determining that Eiselstein's grandparent application did not provide a written description of the nickel content of the nickel-based alloy set forth in claims 1–7 and 19, which recite various ranges of different elements, "and the balance nickel with nickel constituting about 50 to about 60% of the alloy." We have carefully considered Eiselstein's assertions regarding this point. Since the grandparent application only disclosed a nickel range of 45–55%, it can hardly be said to have disclosed 50–60%. Whatever the term "about" means in this context, it is clear that it does not extend 55% to encompass 60%. Moreover, the 10% range of 45–55%, even if it is an approximate "about" 45–55%, is not the same as a very different 10% range, *viz.*, 50–60%. The limits of these ranges vary from each other by about 10%, which is comparable to the extent of the variation within each range. Eiselstein has therefore not persuaded us that the Board clearly erred in finding that the grandparent application did not provide an adequate written description of the invention comprising 50–60% nickel.

## CONCLUSION

The decision of the United States Patent and Trademark Office Board of Patent Appeals and Interferences is

*AFFIRMED–IN–PART and REVERSED–IN–PART.*


**CAMARGO CORREA METAIS, S.A., Plaintiff–Appellee,**

**and**

**Companhia Brasileira Carbureto de Calcio, Rima Electrometalurgia, S.A. and Ligas de Aluminio, S.A., Plaintiffs,**

**v.**

**The UNITED STATES, Defendant–Appellee,**

**and**

**American Alloys, Inc., Globe Metallurgical, Inc., American Silicon Technologies (formerly Silicon Metaltech Inc.), Defendants–Appellants,**

**and**

**Simetco Inc., Defendant.**

**No. 94–1397.**

United States Court of Appeals, Federal Circuit.

April 17, 1995.

Challenge by American producers of silicon metal to remand determination of dumping margin by International Trade Administration (ITA) was summarily dismissed by the United States Court of International Trade, R. Kenton Musgrave, J., and appeal was taken. The Court of Appeals for the Federal Circuit, Clevenger, Circuit Judge, held that remand was necessitated by failure of the Court of the International Trade to support its decision by statement of findings of fact and conclusions of law or opinion stating reasons and facts on which decision was based.

Vacated and remanded.



**1. Customs Duties ⇐84(1)**

Court of International Trade has exclusive jurisdiction to review administrative proceedings that result in establishment of dumping margins, and expertise it develops and maintains from its exclusivity is worthy of respect. 28 U.S.C.(1988 Ed.) §§ 1581(c), 1585.

**2. Customs Duties ⇐84(1)**

When reviewing administrative action that results in dumping margins mandated by the International Trade Administration (ITA), Court of International Trade sits as a trial court, in a manner similar to district courts and Court of Federal Claims in their review of administrative decisions. 28 U.S.C.(1988 Ed.) §§ 1581(c), 1585.

**3. Customs Duties ⇐84(8.1)**

Judgment alone does not satisfy mandatory requirements of statute providing that final decision of the Court of International Trade in contested civil action shall be supported by statement of findings of fact and conclusions of law or opinion stating reasons and facts on which decision is based, and absence of compliance precludes effective appellate review, requiring remand. 28 U.S.C.(1988 Ed.) § 2645(a).

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Ryan Trainer, Roger & Wells, Washington, DC, argued for plaintiff-appellee. With him on the brief were William Silverman and Stephen J. Claeys.

Reginald T. Blades, Jr., Atty., Commercial Litigation Branch, Dept. of Justice, Washington, DC, argued for defendant-appellee. With him on the brief were Frank W. Hunger, Asst. Atty. Gen. and David M. Cohen, Director.

Charles M. Darling, IV, Baker & Botts, L.L.P., Washington, DC, argued for defendants-appellants. With him on the brief were William D. Kramer and Martin Schaefermeier.

Before NIES, CLEVENGER and RADER, Circuit Judges.

CLEVENGER, Circuit Judge.

American producers of silicon metal, American Alloys, Inc., Globe Metallurgical, Inc., and American Silicon Technologies appeal from the April 29, 1994 judgment of the Court of International Trade, *Camargo Correa Metais, S.A. v. United States*, No. 91–09–00641, slip op. 94–68, 1994 WL 162558, affirming a remand determination by the International Trade Administration (ITA) in *Final Results of Redetermination Pursuant to Court Remand* (Dec. 13, 1993). For the reason set forth below, we vacate the judgment of the Court of International Trade and remand for further proceedings consistent with our holding.

## I

This appeal involves a challenge by American producers of silicon metal to the actions taken by the ITA in setting dumping margins applicable to certain Brazilian producers of silicon metals who export their product into United States markets. The dumping margins initially established by the ITA ranged from 93.20% to 87.79%. *Final Determination of Sales at Less Than Fair Value: Silicon Metal from Brazil*, 56 Fed.Reg. 26,977, 26,987 (June 12, 1991). The agency action establishing those margins was challenged in the Court of International Trade in a consolidated action brought by four Brazilian exporters. In an Order dated August 13, 1993, the Court of International Trade remanded the case to the ITA. The remand Order compelled the ITA to "explain in greater detail its allocation of annual GS & A [general, selling, and administrative] expenses to the merchandise produced during

process, we would dismiss the petition because the claim is redressable under the contract. *Cf.* Zidell Explorations, Inc. v. United States, 427 F.2d 735, 192 Ct.Cl. 331 (1970). There is no breach claim separate from, or additional to, that claim which is remedial through the "disputes" procedure.

[11] Through new counsel, plaintiff asks us, if this is so, to let him amend once again to show a claim under the contract. He would go back to the agency and exhaust there whatever remedies he has not already exhausted. We think it is far too late in this particular litigation to countenance any such last-minute change in theory. In September 1968—over two years after the institution of the present action—plaintiff filed a second petition (No. 291–68) setting up what is now Count II of the instant case as a separate breach of contract claim; it was insisted that the claim was for breach. We dismissed that second petition, arising out of the same contract as present Count I, because it attempted to split a single cause of action, but without prejudice to the possibility of amending the petition in the present case (No. 224–66) to set forth the same breach claim, if leave was allowed. The trial commissioner denied leave on the ground that it was already too late, but in October 1969 we overruled that order and granted the motion; Count II was accordingly filed at that time. In taking that action, we acted very leniently toward plaintiff's delay.[3] We think it would be an abuse of our discretion to allow still another substantial amendment in 1971, almost five years after the original petition was filed in this court, almost two years after plaintiff first sought leave to file Count II as a breach claim, over six years after plaintiff's correspondence with the contracting officer on the moisture in the borrow area (correspondence which took place early in 1965), and at the end of proceedings in this court looking to the final disposition of this old case. There is no adequate reason why the substance of Count II could not and should not have been presented to us, long ago, as a claim redressable under the contract (if the plaintiff believes he has properly exhausted his administrative remedy).

This result eliminates by rendering moot the issue whether plaintiff exhausted his remedies when the case was before the Department of Agriculture. If he did, he cannot now seek Wunderlich Act review because it would split his cause of action. If he did not, that only adds another ground for dismissing his petition at the present time. Therefore, we do not pass on the parties' arguments as to the issue of exhaustion of remedies.

For these reasons, we grant defendant's motion for summary judgment on Count II.

## CONCLUSION

For the reasons stated in Part I, *supra*, the plaintiff's motion for summary judgment on Count I is allowed, and the defendant's cross-motion on this claim is denied, the plaintiff being entitled to recover $9,189.41 on this cause of action; the defendant's unopposed motion for summary judgment on its second counterclaim is allowed, the defendant being entitled to recover $2,496 on this counterclaim; the defendant's first counterclaim, being waived, is dismissed; and judgment is entered for the plaintiff in the net amount of $6,693.41 ($9,189.41 minus $2,496). For the reasons stated in Part II, *supra*, the defendant's motion for summary judgment on Count II is granted, and that count of the petition is dismissed.

3. In allowing the amendment to be filed, the court did not, of course, consider or decide whether the new Count II stated a valid cause of action.



58 CCPA

**Application of Carl A. LUKACH, Setha G. Olson and Harold M. Spurlin.**
**Patent Appeal No. 8517.**

United States Court of Customs and Patent Appeals.
May 27, 1971.

From a decision of the patent office board of appeals affirming the rejection of all claims in application serial No. 442,186, the applicant appealed. The Court of Customs and Patent Appeals, Lane, J., held that a "grandparent application" which stated merely that molecular weight distribution of solid, elastomeric copolymers was "narrow" and did not disclose any defined genus of which copolymers claimed in the current, junior application were a subgenus failed to expressly or inherently disclose the invention claimed in the junior application and the junior applicant was not entitled to the filing date of the "grandparent application."

Affirmed.

**1. Patents ⇐101(6)**
Invention claim does not have to be described in ipsis verbis in order to satisfy description requirement of statute setting forth requirements of specification. 35 U.S.C.A. § 112.

**2. Patents ⇐90(1)**
"Grandparent application" which stated merely that molecular weight distribution of solid, elastomeric copolymers was "narrow" and did not disclose any defined genus of which copolymers claimed in junior application were a subgenus failed to expressly or inherently disclose invention claimed in junior application and junior applicant was not entitled to filing date of "grandparent application." 35 U.S.C.A. §§ 102 (b), 112, 120.

**3. Patents ⇐65**
Description of single embodiment of broadly claimed subject matter constitutes description of invention for anticipation purposes, though same information in specification might not alone be enough to provide description of that invention for purposes of adequate disclosure. 35 U.S.C.A. §§ 112, 120.

**4. Constitutional Law ⇐70(3)**
If apparent anomalies between requirements for claim-anticipating disclosures and for claim-supporting disclosures really produces inequities, proper remedy is in Congress. 35 U.S.C.A. §§ 112, 120.

Marion C. Staves, Wilmington, Del., attorney of record, for appellants.

S. Wm. Cochran, Washington, D. C., for the Commissioner of Patents. Fred W. Sherling, Washington, D. C., of counsel.

Before RICH, ALMOND, BALDWIN and LANE, Judges, and SKELTON, Judge, United States Court of Claims, sitting by designation.

LANE, Judge.

This appeal is from the decision of the Patent Office Board of Appeals affirming the rejection of all claims in appellants' application serial No. 442,186, filed March 23, 1965, for Copolymers. We affirm.

The application is stated to be a continuation of copending application serial No. 186,326, filed April 10, 1962, which we shall call the parent application. The parent application is stated to be a continuation-in-part of then copending application serial No. 82,417, filed January 13, 1961, now U.S. Patent 3,153,023. We shall call this application the grandparent.[1] The instant application and the parent appear to contain identical disclosures. However, in order to avoid a

1. The grandparent was a continuation-in-part of application serial No. 796,261, filed March 2, 1959, now abandoned. This fact, however, is not critical to the issues before us.

time bar under § 102(b) arising from appellants' British patent 857,183, issued to Hercules Powder Co., the complete specification of which was published December 29, 1960, appellants need the benefit of the filing date of the grandparent application.

One requirement for obtaining that benefit is that the invention now claimed has to have been disclosed in both the parent and grandparent applications "in the manner provided by the first paragraph of section 112." 35 U.S.C. § 120. Whether it was so disclosed is the issue before us, all other requirements of § 120 being clearly met.

Each of the claims is drawn to copolymers of ethylene and propylene, the copolymers being defined by certain recited physical characteristics. Claim 1 is illustrative:

> 1. A solid elastomeric copolymer of ethylene and propylene having from about 25 mole % to about 60 mole % of repeating units derived from propylene, a reduced specific viscosity of at least about 1.3, a Mw/Mn ratio of at least 2.0 and less than about 3.0, a solubility in n-heptane at –15°C. of at least about 93% by weight and a solubility in a mixture of equal volumes of n-heptane and acetone at 20°C. of less than about 6% by weight, wherein at least 90% of the total copolymer has a propylene content within 5 percentage units of the average composition.

The significance of these limitations is said to be as follows: The copolymers within the claim

> 1. Are solid. This is indicated by the recitations of "reduced specific viscosity of at least about 1.3" and "solubility in a mixture of equal volumes of n-heptane and acetone at 20°C. of less than about 6% by weight."
>
> 2. Are elastomeric. This is indicated by the recitations "having from about 25 mole % to about 60 mole % of repeating units derived from propylene" and "a solubility in n-heptane at –15°C. of at least about 93% by weight."
>
> 3. Are essentially homogeneous as to composition. This is indicated by the recitation "at least 90% of the total copolymer has a propylene content within 5 percentage units of the average composition."
>
> 4. Have a narrow molecular weight distribution. This is indicated by the recitations "a Mw/Mn ratio of at least 2.0 and less than 3.0."

We focus on the last-mentioned recitation. Mw stands for weight-average molecular weight, and Mn stands for number-average molecular weight. The computation of the value of each of these terms is apparently a complicated matter. See Billmeyer, Textbook of Polymer Science, pp. 56–57, 66–67 (1962). Appellants contend that the ratio Mw/Mn is a recognized indication of molecular weight distribution. This may be so. The examiner, however, was of the view that the "ratio of at least 2.0 and less than 3.0 is not supported in any of the parents." The board agreed, stating: "[T]he Examiner's position is that the range recited in the claims is not disclosed in the earlier applications, and we do not find any disclosure of such a range." For this reason, among others, the board held that appellants were not entitled to the benefit of the grandparent application and hence affirmed the § 102 (b) rejection.

As pointed out above, the question is whether the parent and grandparent applications disclose, "in the manner provided by the first paragraph of section 112," the invention now claimed. From the board's language it is apparently the description requirement, rather than the enablement provisions or best mode provision, of the first paragraph of § 112, which was considered not to have been met.

It is undisputed by appellants that where an applicant claims, as here, a class of compositions, he must describe *that class* in order to meet the description requirement of the statute. See In re Ahlbrecht, 435 F.2d 908, 58 C.C.P.A. 848 (1971); In re DiLeone and Lucas, 436 F.2d 1404, 58 C.C.P.A. 925 (1971); In re DiLeone, 436 F.2d 1033, 58 C.C.P.A. 934 (1971). The question then is whether appellants have done so in the parent and grandparent applications. We agree with the examiner and the board that they have not.



[1] Looking to the grandparent application, we find no express mention of the Mw/Mn ratio of the copolymers described therein. Appellants correctly argue, however, that the invention claimed does not have to be described *in ipsis verbis* in order to satisfy the description requirement of § 112. See, e. g., Henry J. Kaiser Co. v. McLouth Steel Corp., 257 F.Supp. 372, 429 (E.D.Mich.1966), affd., Kaiser Industries Corp. v. McLouth Steel Corp., 6th Cir., 400 F.2d 36 (6th Cir. 1968), cert. denied, 393 U.S. 119, 89 S.Ct. 992, 22 L.Ed.2d 124 (1969).

The matter of what language constitutes sufficient description to support a claim of given breadth has been a troublesome question. See, e. g., the *DiLeone* cases and In re Ahlbrecht, supra. An especially difficult aspect of this problem has been the situations involving specifications which describe *broader* subject matter than is subsequently claimed, e. g., a genus when a subgenus is claimed. Appellants urge that in the instant case their grandparent application disclosed a genus of copolymers having, among other characteristics, "narrow molecular weight distribution," and that they are now further limiting the claims to the subgenus wherein the distribution is indicated by a Mw/Mn ratio between 2.0 and 3.0. They point out that the examiner has agreed that one of the working examples in the grandparent inherently describes a copolymer which would have a Mw/Mn ratio of 2.6. They then urge that this court's decision in In re Risse, 378 F.2d 948, 54 CCPA 1495 (1967), stands for the proposition that an applicant is entitled, as to a claimed subgenus, to the benefit of the filing date of a parent application if the parent discloses a genus wholly encompassing the claimed subgenus and also discloses a species within that subgenus.

We note, first of all, that the grandparent application here does not disclose any defined genus of which the presently claimed copolymers are a subgenus. The grandparent application states merely that the molecular weight distribution of copolymers therein described is "narrow." As far as we know from the record, this term has no reasonably precise meaning in the art, and hence we are unable to tell what relationship, if any, exists between the grandparent disclosure and the presently claimed class of copolymers. Therefore, even if the rule appellants extract from *Risse* represents the law, it is inapplicable here.

[2] We are thus left with the single example inherently disclosing a copolymer having a Mw/Mn ration of 2.6. This single example does not alone provide support for the recited range from 2.0 to 3.0, and nothing has been brought to our attention to show that any other language in the grandparent application, taken together with the knowledge of persons skilled in the art, points to the recited range. Accordingly, the grandparent application does not, either expressly or inherently, disclose the invention now claimed, and appellant is not entitled to the benefit of the grandparent filing date. It follows that appellants cannot overcome the § 102(b) time bar arising from publication of the complete specification of their British patent.

[3, 4] Appellants have raised a further point. They contend that "[t]here is an inconsistency constituting an inequity in rejecting the claims as fully met by the Hercules British patent under 35 USC 102, while at the same time holding that appellants cannot obtain the benefit of the filing date of the U. S. counterpart." What they are saying, in terms of the statute, is that if "the invention was * * * described" in the British reference within the meaning of § 102(b), there must have been a "description of the invention" in the cor-

responding grandparent application within the meaning of the first paragraph of § 112. This argument appears to overlook the law that the description of a single embodiment of broadly claimed subject matter constitutes a description of the invention for anticipation purposes (see, e. g., In re Ruscetta, 255 F.2d 687, 45 CCPA 968 (1958)), whereas the same information in a specification might not alone be enough to provide a description of that invention for purposes of adequate disclosure. See, e. g., In re Ahlbrecht, supra. There are other apparent anomalies between the requirements for claim-anticipating disclosures and for claim-supporting disclosures. See, e. g., In re Hafner, 410 F.2d 1403, 56 CCPA 1424 (1969). If the law in these situations really produces inequities, the proper remedy is in Congress.

The decision of the board is *affirmed*.

Affirmed.

58 CCPA

**Claude GORTATOWSKY, Appellant,**

**v.**

**Mohammad H. ANWAR and Marvin Calderon, Appellees.**

**Patent Appeal No. 8608.**

United States Court of Customs and Patent Appeals.

June 3, 1971.

Board of patent interferences, interference No. 95,698, awarded priority, and appeal was taken. The Court of Customs and Patent Appeals, Almond, J., held that one applicant's proof of reduction to practice of invention relating to soft drink emulsions, wherein caramel which had previously been used only as a colorant in soft drink syrup was used to emulsify edible oils of soft drink base, failed for lack of proper corroboration and priority was properly awarded to other applicant.

Affirmed.

**1. Patents ⇐91(3)**

Mere fact that person other than inventor was present in laboratory does not adequately corroborate alleged reduction to practice unless the other can also testify as to work performed.

**2. Patents ⇐91(4)**

One applicant's proof of reduction to practice of invention relating to soft drink emulsions, wherein caramel which had previously been used only as a colorant in soft drink syrup was used to emulsify edible oils of soft drink base, failed for lack of proper corroboration and priority was properly awarded to other applicant.

**3. Patents ⇐113(1)**

On appeal from decision of patent office board of patent interferences awarding priority, where additional materials printed in record as requested by appellees were not necessary or useful in resolving issues before Court of Customs and Patent Appeals, cost of printing the additional pages would be assessed against appellees.

Joseph A. DeGrandi, Washington, D. C., attorney of record, for appellant. Francis C. Browne, Andrew B. Beveridge, Washington, D. C. (Browne, Beveridge & DeGrandi), and John R. Martin, Atlanta, Ga., of counsel.

Robert H. Berdo, Washington, D. C., attorney of record for appellee. David S. Abrams, Washington, D. C. (Roylance, Abrams, Berdo & Kaul), Washington, D. C., and Ronald R. Kranzow, Purchase, N. Y., of counsel.

Before RICH, ALMOND, BALDWIN and LANE, Judges, and LANDIS, Judge, United States Customs Court, sitting by designation.



ALMOND, Judge.

This is an appeal from the decision of the Patent Office Board of Patent Interferences awarding priority to appellees, Mohammad H. Anwar and Marvin Calderon (hereinafter Anwar).

Appellant, Gortatowsky, is involved on application serial No. 349,739 filed March 5, 1964. The Coca-Cola Company is the exclusive licensee of the Gortatowsky application. The Anwar application, serial No. 329,968 filed December 12, 1963, is assigned to PepsiCo, Inc., successor to The Pepsi-Cola Company.

The invention in issue relates to soft drink emulsions wherein caramel, which had previously been used only as a colorant in the soft drink syrup, is used to emulsify the edible oils of the soft drink base.[1] This eliminates the need for gum emulsifying agents, such as gum acacia, gum arabic, etc. The single count on appeal reads:

> 2. A stable aqueous emulsion consisting essentially of at least one edible oil and an emulsifying amount of caramel, said caramel being the only emulsifying agent for said edible oil in said emulsion.

Both parties, in attempting to show priority of invention by earlier reduction to practice, presented considerable evidence in the nature of testimony, affidavits, exhibits, etc. The board found Gortatowsky's evidence insufficient to show a reduction to practice prior to the December 12, 1963 filing date of Anwar; therefore, the board found it unnecessary to examine the priority proofs of Anwar. The issue on appeal is whether the evidence of Gortatowsky is sufficient to show a reduction to practice prior to December 12, 1963.

As evidence of reduction to practice, Gortatowsky relies on five emulsions allegedly made in August and October of 1963. Two of the emulsions were made with corn oil and caramel, one with olive oil and caramel, one with lemon oil and caramel, and one with lime oil and caramel. Anwar contends that Gortatowsky's evidence in regard to these emulsions fails to show a reduction to practice since (1) there is no evidence that caramel was the only emulsifying agent used in making the emulsions, (2) the stability of the emulsions was not established, and (3) the utility of the emulsions was not established. In addition, Anwar contends that even if the testimony of the inventor Gortatowsky is adequate to show the above-mentioned elements of reduction to practice, his testimony has not been properly corroborated either as to the elements of reduction to practice or the date when the emulsions were made.

The board, in awarding priority to Anwar, stated:

> We cannot accept Gortatowsky's testimony relative to a nunc-pro-tunc appreciation of the emulsion stability and utility respectively * * *.
>
> Nor does any contemporaneous document of Gortatowsky specifically describe the stability of the emulsion and the utility of the emulsion prior to December 12, 1963.
>
> Finally, the case for Gortatowsky falls for want of proper corroboration of the testimony of the inventor, Gortatowsky.

We will affirm the decision of the board because we are convinced that the testimony of Gortatowsky concerning the preparation of the above-mentioned emulsions, which allegedly constitutes a reduction to practice, has not been properly corroborated. Therefore, we find it unnecessary to decide whether the testimony of Gortatowsky himself was adequate and whether the date of Gortatowsky's work was properly corroborated.

[1] The main corroborating witness relied upon by Gortatowsky is Leroy Ta-

1. Both parties inform us that a soft drink syrup is made from the emulsified oils of the soft drink base by adding such things as flavorings, colorings, phosphoric acid, and a water-sugar mixture. Soft drinks are then made from the syrup by adding carbonated water.